

# ENTOMOLOGICAL NEWS

---

VOL. LX

JUNE, 1949

No. 6

---

## Fleas of the Sagebrush Meadow Mouse

By C. ANDRESEN HUBBARD, Vanport College, Portland 3, Oregon

The sagebrush meadow mouse, *Lagurus curtatus pauperimus*, has been one of the rare mice of North America even in museum collections. During 1948, two naturalists of the State of Washington, Dr. C. Wesley Clanton of the Washington State Department of Health and Dr. Murray Johnson, Surgeon of Tacoma, Washington working on plague investigation in central Washington uncovered ranges where these rare mice were taken by the hundreds. Samplings of their fleas were sent to the writer for determination. The great bulk of these were two entirely new insects, and are described herewith, each bearing the name of one of the above investigators. The type locality in each case is Davenport, Lincoln County, Washington, the type host the sagebrush meadow mouse. Because there are large numbers of these fleas before the writer at this time types are deposited in the Academy of Natural Science of Philadelphia, the U. S. National Museum, the British Museum and in 20 other depositories maintained by the writer. The holotype male and allotype female in each case, mounted on a single slide and bearing the writer's number 2700 and dated May 15, 1949, have been sent to the National Museum.

### **Megabothris clantoni** new species

The new species is close to *Megabothris abantis* (Roths.) from which it differs in the male by the shape and armature of the finger. Whereas the finger of *abantis* is somewhat rectangular with long, posterior face undulant, in *clantoni* the finger is ham-shaped, the shank portion between long spiniform and

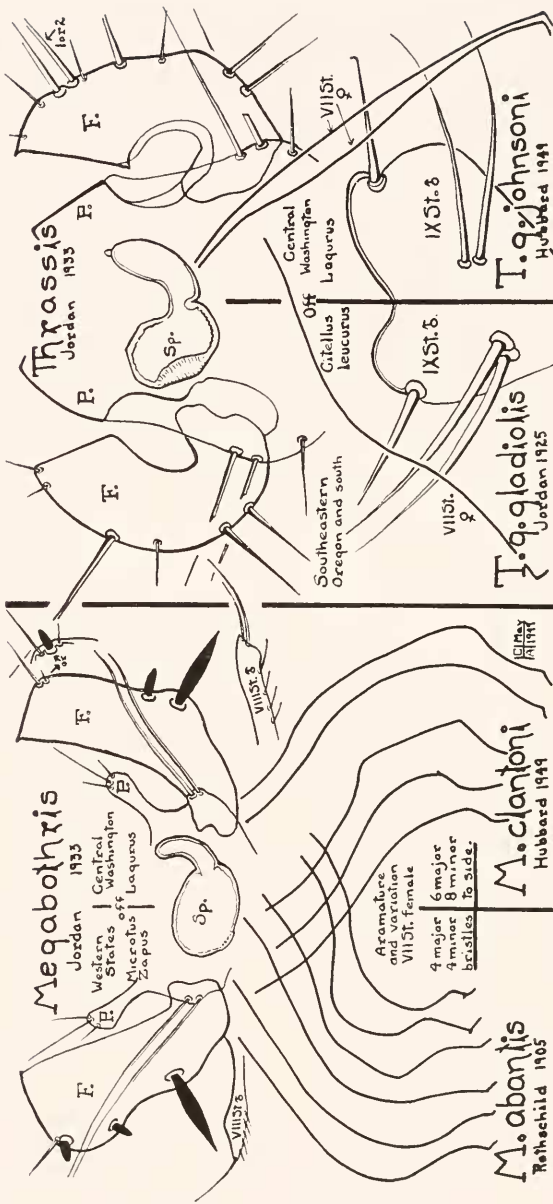


FIG. 1. *Megabothris abantisi*, *M. clantoni*, *Thrasis gladiolis gladiolis*, *T. g. johnsoni*.

articulation with process as long as the portion of finger above long spiniform. Armature in *abantis* a lower long pointed spiniform, then above it about equally spaced two much shorter spiniforms apically rounded, but in *clantoni* this arrangement is changed by having the upper spiniform of *abantis* represented in the majority of cases by a simple small bristle. About 1 out of 20 specimens in *clantoni* have the armature arrangement of *abantis*.

Due to the amount of variation in the apical outline of the VII sternite of the female in both *abantis* and *clantoni* it is difficult to distinguish one from the other. This outline in *clantoni* is with upper lobe which varies from well rounded to angulate. The outline of the allotype is with upper lobe with flat surface, lower angle angulate, upper angle rounded. The spermatheca is barrel shaped, with crooked finger shaped appendix but without appendage.

The new flea measures 2.00 mm. in male, 2.75 mm. in female.

Remarks: As early as June 16, 1938 the writer took the female of this flea off *Lagurus* at Bickleton, Washington but mistook the specimens for *M. abantis*. Specimens coming to him from Clanton have been in the ratio of 5 females to 1 male. These fleas have proved plague positive in parts of central Washington. From February through June at least the flea count on these mice is very high.

#### ***Thrassis gladiolis johnsoni* new subspecies**

The new subspecies is close to *Thrassis gladiolis gladiolis* which ranges some 300 miles to the south in southeastern Oregon. The writer has no evidence that the range of the two fleas comes closer. The chief difference between the males of *Thrassis g. gladiolis* and *Thrassis g. johnsoni* is the very prominent IX sternite in the new form which if one were to state it in the vernacular "sticks out like a sore thumb." The finger of *johnsoni* is of the general shape of *gladiolis* but the armature is somewhat different, being of 5 major bristles along the posterior border, the two uppermost very long and fairly close together. Midway down the border is a major bristle, which may be directed

downwards. At the lower angle of the border are the usual 2 *Thrassis* spike-like bristles. The VIII sternite is apically angulate rather than rounded as in other *gladiolis*. The IX sternite sets well out beyond the other modified segments. The apical bristle is not so spine-like and the customary paired bristles below the apex are grass-blade-like.

In the apical outline of the VII sternite of the female the undulation found in the females of other *gladiolis* is missing. The outline, if not damaged, is nicely rounded. The armature consists of 5 stout bristles. The spermatheca is typically *Thrassis*.

In length these fleas measure 1.50 mm. in male and 2.00 mm. in female.

Other interesting data in this study were the rarity of fleas other than *Megabothris clantoni* and *Thrassis gladiolis johnsoni* on *Lagurus*. In some 500 fleas checked the writer found only 4 males of *Malaraeus telchinum* (Roths.), a deer mouse flea, 1 male and 3 females of *Catallagia decipiens* (Roths.), a mouse flea and 1 male and 2 females of *Meringis shannoni* (Jordan), a pocket mouse flea. Clanton took 11 specimens of *Rattus norvegicus* as Odessa, Lincoln County, Washington which carried amongst other fleas 1 male and 2 females of *Megabothris clantoni* and a female of *Thrassis gladiolis johnsoni*.

---

### Personal

Doctor **H. B. Hungerford** has retired as head of the Department of Entomology of the University of Kansas. He will continue his teaching, both at the University of Kansas and, during summer months, at the University of Michigan Biological Station. He expects to continue his research program on the aquatic Hemiptera. Having recently published a revision of the Corixidae of the Western Hemisphere, he plans to complete his study of the Corixidae of the Eastern Hemisphere.

He is replaced as chairman of the Department of Entomology by Doctor Charles D. Michener, who is continuing studies now in progress on the saturniid moths and plans to continue his principal research studies in the taxonomy, evolution, biology and behavior of bees.